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DATE MAILED: 08/12/2009

#### NOTICE OF ALLOWANCE AND FEE(S) DUE

109 7590 08/12/2009

The Dow Chemical Company Intellectual Property Section P.O. Box 1967 Midland MI 48641-1967 EXAMINER
WITHERSPOON, SIKARL A
ART UNIT PAPER NUMBER

 APPELCATION NO.
 FILINO DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 10/575/993
 04/17/2006
 Robert E. Hefner JR.
 62750A
 8913

TITLE OF INVENTION: MULTIFUNCTIONAL ETHYNYL SUBSTITUTED MONOMERS AND POLYARYLENE COMPOSITIONS THEREFROM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	11/12/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless correcte maintenance fee notifical	correspondence includir ed below or directed oth	or transmitting the 1880 ig the Patent, advance of nerwise in Block 1, by (	rders and notification of n a) specifying a new corres	naintenance fees wi pondence address;	ll be and/or	mailed to the current (b) indicating a sepa	corresponder	ondence address as EE ADDRESS" for
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Midland, MI 486	041-1967							(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.	
10/575,993 TITLE OF INVENTION	04/17/2006 : MULTIFUNCTIONAI	ETHYNYL SUBSTITU	Robert E. Hefner JR. TED MONOMERS AND	POLYARYLENE (	СОМР	62750A OSITIONS THEREF	ROM	8913
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nonprovisional	NO	\$1510	\$300	\$0	\$1810			11/12/2009
EXAM	INER	ART UNIT	CLASS-SUBCLASS					
WITHERSPOO	ON, SIKARL A	1621	568-330000					
"Fee Address" ind. PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DATZ less an assignee is ident h in 37 CFR 3.II. Comp	nge of Correspondence  "Indication form ed. Use of a Customer A TO BE PRINTED ON	2. For printing on the p (I) the names of up to or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attoe listed, no name will be THE PATENT (print or typ data will appear on the p off a substitute for filing an (B) RESIDENCE: (CITY)	3 registered patent rely, e firm (having as a sgent) and the name meys or agents. If n printed. te)	memb s of up o nam	er a 2		t has been filed for
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	s SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no long					
NOTE: The Issue Fee and interest as shown by the i	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other than to Office.	he applicant; a regis	tered a	attorney or agent; or th	ie assign	ee or other party in
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This collection of inform an application. Confident submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 d application form to the ons for reducing this but firginia 22313-1450. DC 13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by th imated to take 12 m idual case. Any cor r, U.S. Patent and 7 7 THIS ADDRESS.	e publ inutes nment Traden SENI	ic which is to file (and to complete, includir s on the amount of ti- nark Office, U.S. Dep D TO: Commissioner	I by the ig gather me you i artment for Pater	USPTO to process) ing, preparing, and require to complete of Commerce, P.O. nts, P.O. Box 1450,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/575,993	04/17/2006	Robert E. Hefner JR.	62750A	8913		
109 7	590 08/12/2009		EXAMINER			
The Dow Chemical Company			WITHERSPOON, SIKARL A			
Intellectual Property Section			ART UNIT	PAPER NUMBER		
P.O. Box 1967 Midland, MI 48641-1967			1621 DATE MAILED: 08/12/2009			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 641 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 641 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Application No. Applicant(s) 10/575 993 HEFNER, ROBERT E. Notice of Allowability Examiner Art Unit Sikarl A. Witherspoon 1621 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to papers filed 23 April 2009. 2. The allowed claim(s) is/are 2 and 8-14. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) $\square$ All b) ☐ Some\* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. ☐ Examiner's Amendment/Comment Paper No./Mail Date 8/14/06 8. X Examiner's Statement of Reasons for Allowance ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

/Sikarl A. Witherspoon/ Primary Examiner, Art Unit 1621 Other .

Application/Control Number: 10/575,993

Art Unit: 1621

### Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: the restriction requirement and/or election of species made by the previous examiner have been with drawn. All pending claims have been examined.

The instant claims are drawn to an ethynyl-substituted polyarene compound or compounds and to a cross-linked polymer formed by curing a composition comprising said compound(s), and a porous matrix formed by removing the poragen from the cross-linked polymer. The closest prior art of record, namely, the references listed on the attached PTO-1449 and PTO-892 forms, teach compounds related to the claimed compounds. The closest prior art compounds differ from the claimed compound in that they do not contain free, or open acetylene moieties. It would not have been obvious to modify the prior art compound to arrive at the claimed compounds, and furthermore, applicants have described an unexpected benefit afforded by the claimed compounds having said open acetylene moiety, said benefit being in the form of an enhanced crosslinking rate at lower temperatures. This benefit or attribute of the claimed compounds versus the prior art compounds is not readily, or obviously discernable from the prior art documents. The examiner has reviewed the International Preliminary Examination Report (IPER) filed by applicants; however, the examiner does not agree with the assessment of lacking inventive step made in the IPER. The examiner contends that applicants are not required to provide examples to every monomer commensurate in scope with the instant claims, nor experimental data with regard to the alleged benefit of the claimed compounds, as alleged in the IPER. A person having ordinary skill in the

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art would have been able to synthesize the claimed compounds, i.e. compounds having a free acetylene group, base on the documents incorporated by reference, and the general aptitude of a person having ordinary skill in the art. Accordingly, the instant claims are allowed.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikarl A. Witherspoon whose telephone number is 571-272-0649. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikarl A. Witherspoon/ Primary Examiner, Art Unit 1621